

# **EXHIBIT A**

Docket No.: 5398-027-27 CONTBy: SBK/MY/klhPIPER RUDNICK No.: 311398-45Serial No.: 10/697,720In the Matter of the Application of: Stanley N. COHEN, et al.For: MAMMALIAN TUMOR SUSCEPTIBILITY GENES AND THEIR USES

The following has been received in the U.S. Patent Office on the date stamped hereon:

- ☐ \_\_\_\_\_ pp. Specification & \_\_\_\_\_ Claims/Drawings \_\_\_\_\_ Sheets  
☐ Combined Declaration, Petition & Power of Atty. (\_\_\_\_ Pages/Executed)  
☐ Utility Patent Application Transmittal  
☐ Continued Prosecution Application  
☐ Request for Continued Examination (RCE)  
☐ List of Inventors' Names and Addresses  
☒ Fee Transmittal  
☒ Check for \$ 740.00 ☐ Dep. Acct. Order Form  
☐ Assignment \_\_\_\_\_ pages (executed) ☐ PTO-DEPS  
☐ Request for Priority  
☐ Priority Doc. ( )  
☐ White Advance Serial Number Postcard  
☐ Preliminary Amendment  
☐ Letter to Official Draftsman  
☐ Request for Approval of Proposed Drawing Changes  
☐ Drawings \_\_\_\_\_ sheets  
☒ Letter (Transmittal)  
☒ Notice To Comply (return copy)  
☒ Request for Extension of Time (4 month(s))  
☒ Response to Notice to Comply and Preliminary Amendment  
☐ List of Related Cases  
☐ Cited Documents ( )  
☐ \_\_\_\_\_ Search Report  
☐ Statement of Relevancy  
☐ Restriction Response ☐ Election Response  
☒ Computer Readable Sequence Listing (diskette)  
☒ Statement Under 37 C.F.R. § 1.821-1.825 (1 page, executed)  
☒ Substitute Sequence Listing (paper copy, 9 pages) (1 diskette)

JUN 29 2004

TRADEMARK OFFICE

dgm

**PIPER RUDNICK<sup>LLP</sup>**  
1200 NINETEENTH STREET, NW  
WASHINGTON, DC 20036-2412  
TELEPHONE: 202-861-3900  
FACSIMILE: 202-223-2085

DOCKET NO.: 5398-027-27 CONT

ASSISTANT COMMISSIONER FOR PATENTS  
PO BOX 1450  
ALEXANDRIA, VA 22313-1450

Re: Serial No.: 10/697,720  
Applicant(s): Stanley N. COHEN, et al.  
Filing Date: October 29, 2003  
For: MAMMALIAN TUMOR SUSCEPTIBILITY GENES AND THEIR  
USES  
Group Art Unit: 1642  
Examiner: Unassigned

SIR:

Attached hereto for filing are the following papers:

Fee Transmittal  
Request for Extension of Time (4 months)  
Notice to Comply (Return Copy)  
Response to Notice to Comply and Preliminary Amendment  
Statement Under 37 C.F.R. § 1.821-1.825 (1 page, executed)  
Substitute Sequence Listing (paper copy, 9 pages)  
Computer Readable Sequence Listing (diskette)

Our check in the amount of \$ 740.00 is attached covering any required fees. In the event any variance exists between the amount enclosed and the Patent Office charges for filing the above-noted documents, including any fees required under 37 C.F.R. 1.136 for any necessary extension of time to make the filing of the attached documents timely, please charge or credit the difference to Deposit Account No. 50-1442. Further, if these papers are not considered timely filed, then a request is hereby made under 37 C.F.R. 1.136 for the necessary extension of time. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

PIPER RUDNICK LLP



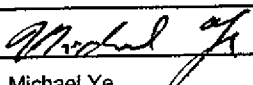
Steven B. Kelber  
Attorney of Record  
Registration No.: 30,073

Michael Ye  
Registration No.: 47,195

<b>FEE TRANSMITTAL</b>				Docket No.		5398-027-27 CONT			
				Serial No.		10/697,720			
				Filing Date		October 29, 2003			
				Inventor(s)		Stanley N. COHEN, et al.			
				Group Art Unit		1642			
TOTAL AMOUNT OF PAYMENT				\$740.00		Examiner		Unassigned	

1. <input checked="" type="checkbox"/> Applicant claims small entity status. <input type="checkbox"/> Charge any <b>UNDERPAYMENT</b> or credit any <b>OVERPAYMENT</b> in the indicated fees to Deposit Account No. 50-1442. <input type="checkbox"/> Charge the indicated fees to Deposit Account No. 50-1442.						<b>FEE CALCULATION (continued)</b>									
						<b>3. ADDITIONAL FEES</b>									
						Large Entity		Small Entity		Fee Description					
2. <input checked="" type="checkbox"/> Check enclosed.						Fee Code	Fee (\$)	Fee Code	Fee (\$)		Fee Paid				
<b>FEE CALCULATION</b>						1051	130	2051	65	Surcharge-late filing fee or oath					
<b>1. BASIC FILING FEE</b>						1052	50	2052	25	Surcharge-late provisional filing fee or cover sheet					
Large Entity		Small Entity		Fee Description		1053	130	1053	130	Non-English Specification					
Fee Code	Fee (\$)	Fee Code	Fee (\$)		Fee Paid	1251	110	2251	55	1-mo. ext. of time					
1001	770	2001	385	Utility filing fee		1252	420	2252	210	2-mo. ext. of time					
1002	340	2002	170	Design filing fee		1253	950	2253	475	3-mo. ext. of time					
1003	520	2003	260	Plant filing fee		1254	1480	2254	740	4-mo. ext. of time	740.00				
1004	770	2004	385	Reissue filing fee		1255	2010	2255	1005	5-mo. ext. of time					
1005	160	2005	80	Provisional filing fee		1401	330	2401	165	Notice of Appeal					
<b>SUBTOTAL (1)</b>					\$0.00	1402	330	2402	165	Appeal Brief					
<b>2. EXTRA CLAIM FEES</b>						1403	290	2403	145	Request for Oral Hearing					
tot. claims			-	20*	= 0	x	\$9	=	0	1501	1330	2501	665	Utility/Reissue Issue Fee	
ind. claims			-	3*	= 0	x	\$43	=	0	1502	480	2502	240	Design Issue Fee	
<input type="checkbox"/> Multiple Dependent Claims						\$145	=			1504	300	1504	300	Publication Fee	
Large Entity		Small Entity		Fee Description		8001	3	8001	3	Advance Copy of Patent					
Fee Code	Fee (\$)	Fee Code	Fee (\$)			1460	130	1460	130	Petitions to the Commissioner					
1202	18	2202	9	Claims in excess of 20		1806	180	1806	180	IDS Submission					
1201	86	2201	43	Independent claims in excess of 3		8021	40	8021	40	Assignment recordation					
1203	290	2203	145	Multiple dependent claim, if not paid		1801	770	2801	385	For Filing RCE					
1204	84	2204	43	*Reissue independent claims over original patent		1814	110	2814	55	Terminal Disclaimer					
1205	18	2205	9	*Reissue claims in excess of 20 and over original patent		OTHER (indicate below):									
<b>SUBTOTAL (2)</b>					\$0.00										
* or number previously paid, if greater; For Reissues, see above						<b>SUBTOTAL (3)</b>						\$740.00			

Name	Steven B. Kelber	Registration No.		30,073	
Signature		Date	6-30-04	Telephone	202-861-3900
Name	Michael Ye	Registration No.		47,195	

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF: Stanley N. COHEN, et al.

ART UNIT: 1642

SERIAL NO.: 10/697,720

EXAMINER: Unassigned

FILING DATE: October 29, 2003

FOR: MAMMALIAN TUMOR SUSCEPTIBILITY GENES AND THEIR USES

**REQUEST FOR EXTENSION OF TIME UNDER 37 C.F.R. 1.136**

ASSISTANT COMMISSIONER FOR PATENTS

PO BOX 1450

ALEXANDRIA, VA 22313-1450

SIR:

It is hereby requested that a ☐ one ☐ two ☐ three ☒ four ☐ five

☐ second ☐ third ☐ fourth ☐ fifth (a \_\_\_\_-month extension and fee having been filed on \_\_\_\_\_)

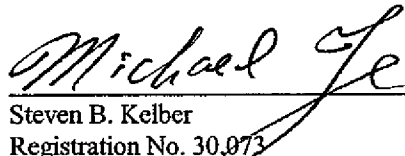
month extension of time be granted to June 30, 2004 for:

- ☐ filing a response to the Official Action dated:
- ☐ responding to the requirements in the Notice of Allowability dated:
- ☐ filing the Formal Drawings. The Issue Fee due \_\_\_\_\_ has been timely filed.
- ☐ responding to the Notice to File Missing Parts of Application dated:
- ☐ filing a Notice of Appeal. A timely response to the final rejection, due \_\_\_\_\_ has been filed.
- ☐ filing an Appeal Brief. A Notice of Appeal was filed on:
- ☒ responding to the Notice to Comply dated : December 30, 2003.

The required fee of \$740.00 is enclosed herewith by check and any further charges may be made against the Attorney of Record's Deposit Account No. 50-1442. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

PIPER RUDNICK LLP

  
\_\_\_\_\_  
Steven B. Kelber  
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Attorney of Record

1200 Nineteenth Street, N.W.  
Washington, D.C. 20036-2412  
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Facsimile No. (202) 223-2085

Michael Ye  
Registration No. 47,195

DOCKET NO. 5398-027-27 CONT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF: Stanley N. COHEN, et al.      ART UNIT: 1642  
SERIAL NO.: 10/697,720      EXAMINER: Unassigned  
FILING DATE: October 29, 2003  
FOR: MAMMALIAN TUMOR SUSCEPTIBILITY GENES AND THEIR USES

**RESPONSE TO NOTICE TO COMPLY AND PRELIMINARY AMENDMENT**

ASSISTANT COMMISSIONER FOR PATENTS  
PO BOX 1450  
ALEXANDRIA, VA 22313-1450

SIR:

In response to the Notice to Comply with Requirements for Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures mailed December 30, 2003, enclosed please find a Computer-Readable Sequence Listing (diskette) and Substitute Sequence Listing (paper copy), along with a statement that the contents of the paper and computer readable form are the same as set forth in 37 C.F.R. 1.821(f).

A Request for Extension of Time for four months is attached hereto and incorporated herein by reference, thereby extending the date for response from February 29, 2004 to June 30, 2004.

**PRELIMINARY AMENDMENT**

Prior to examination of the above-identified application, and to advance the prosecution thereof, please amend the above-referenced application in the following manner.

**IN THE SPECIFICATION**

After page 46, between the specification and the claims, please insert the enclosed paper copy of the Substitute Sequence Listing.

### REMARKS

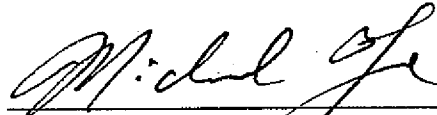
The specification has been amended by adding the attached Substitute Sequence Listing which replaces the Sequence Listing of record in parent Application 09/804,690, filed March 12, 2001. No new matter is believed to be added. Entry is respectfully requested.

### CONCLUSIONS

Applicants respectfully submit that in view of the foregoing amendment and remarks, the application is in condition for examination. Favorable consideration is respectfully requested.

Respectfully submitted,

PIPER RUDNICK LLP



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Facsimile No. (202) 223-2085

Michael Ye  
Registration No. 47,195





## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
 Address: COMMISSIONER FOR PATENTS  
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 Alexandria, Virginia 22313-1450  
 www.uspto.gov

APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
10/697,720	10/29/2003	Stanley N. Cohen	S93-160 CON2

CONFIRMATION NO. 3761

## FORMALITIES LETTER



\*OC000000011585019\*

Bertram I. Rowland, Esq.  
 Lumen Intellectual Property Services, Inc.  
 2nd Floor  
 2345 Yale Street  
 Palo Alto, CA 94306

Date Mailed: 12/30/2003

### NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES

*Filing Date Granted*

Applicant is given **TWO MONTHS FROM THE DATE OF THIS NOTICE** within which to file the items indicated below to avoid abandonment. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

- This application does not contain a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d). Applicant must provide such statement. If the effective filing date is on or after September 8, 2000, see the final rulemaking notice published in the Federal Register at 65 FR 54604 (September 8, 2000) and 1238 OG 145 (September 19, 2000).
- A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 CFR 1.821(e). If the effective filing date is on or after September 8, 2000, see the final rulemaking notice published in the Federal Register at 65 FR 54604 (September 8, 2000) and 1238 OG 145 (September 19, 2000). Applicant must provide an initial computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d). If applicant desires the sequence listing in the instant application to be identical with that of another application on file in the U.S. Patent and Trademark Office, such request in accordance with 37 CFR 1.821(e) may be submitted in lieu of a new CRF.

For questions regarding compliance to these requirements, please contact:

- For Rules Interpretation, call (703) 308-4216
- To Purchase PatentIn Software, call (703) 306-2600
- For PatentIn Software Program Help, call (703) 306-4119 or e-mail at [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or [patin3help@uspto.gov](mailto:patin3help@uspto.gov)

Replies should be mailed to: Mail Stop Missing Parts

Commissioner for Patents  
P.O. Box 1450  
Alexandria VA 22313-1450

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*A copy of this notice MUST be returned with the reply.*

Y.G.

Customer Service Center

Initial Patent Examination Division (703) 308-1202

PART 2 - COPY TO BE RETURNED WITH RESPONSE

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF: Stanley N. COHEN, et al.

ART UNIT: 1642

SERIAL NO.: 10/697,720

EXAMINER: Unassigned

FILING DATE: October 29, 2003

FOR: MAMMALIAN TUMOR SUSCEPTIBILITY GENES AND THEIR USES

**STATEMENT UNDER 37 C.F.R. §1.821-1.825**

ASSISTANT COMMISSIONER FOR PATENTS  
PO BOX 1450  
ALEXANDRIA, VA 22313-1450

SIR:

I, Michael Ye, declare as follows:

1. That the contents of the attached paper copy of the sequence listing and the attached computer readable copy of the sequence listing submitted in accordance with 37 CFR 1.821(c) and (e), respectively, are the same in compliance with 1.821(f).
2. That the submission herein, filed in accordance with 37 CFR 1.821(g), does not include new matter.

Respectfully submitted,

PIPER RUDNICK LLP

6-30-04  
Date

Michael Ye  
Michael Ye  
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Telephone No. (202) 861-3900  
Facsimile No. (202) 223-2085

## SEQUENCE LISTING

<110> Cohen, Stanley N.  
Li, Limin

<120> Mammalian Tumor Susceptibility Genes and Their Uses

<130> 5398-027-27CONT

<140> US 10/697,720

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<150> US 09/804,690

<151> 2001-03-12

<150> US 09/146,187

<151> 1998-09-01

<150> US 08/977,818

<151> 1997-11-25

<150> US 08/670,274

<151> 1996-06-13

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Met Met Ser Lys Tyr Lys Tyr Arg Asp Leu Thr Val Arg Gln Thr Val
1 5 10 15

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Asn Val Ile Ala Met Tyr Lys Asp Leu Lys Pro Val Leu Asp Ser Tyr
20 25 30

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gtt ttt aat gat ggc agt tcc agg gag ctg gtg aac ctc act ggt aca 204
Val Phe Asn Asp Gly Ser Ser Arg Glu Leu Val Asn Leu Thr Gly Thr
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Trp Leu Leu Asp Thr Tyr Pro Tyr Asn Pro Pro Ile Cys Phe Val Lys	
65 70 75 80	
cct act agt tca atg act att aaa aca gga aag cat gtg gat gca aat	348
Pro Thr Ser Ser Met Thr Ile Lys Thr Gly Lys His Val Asp Ala Asn	
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Gly Lys Ile Tyr Leu Pro Tyr Leu His Asp Trp Lys His Pro Arg Ser	
100 105 110	
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Glu Leu Leu Glu Leu Ile Gln Ile Met Ile Val Ile Phe Gly Glu Glu	
115 120 125	
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Pro Pro Val Phe Ser Arg Pro Thr Val Ser Ala Ser Tyr Pro Pro Tyr	
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Thr Ala Thr Gly Pro Pro Asn Thr Ser Tyr Met Pro Gly Met Pro Ser	
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Pro Gly Cys Pro Tyr Pro Pro Ala Gly Pro Tyr Pro Ala Thr Thr Ser	
180 185 190	
tca cag tac cct tcc cag cct cct gtg acc act gtt ggt ccc agc aga	684
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Gln Ala Glu Leu Asn Ala Leu Lys Arg Thr Glu Glu Asp Leu Lys Lys	
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ggc cac cag aaa ctg gaa gag atg gtc acc cgc tta gat caa gaa gta	876
Gly His Gln Lys Leu Glu Glu Met Val Thr Arg Leu Asp Gln Glu Val	
260 265 270	
gct gaa gtt gat aaa aac ata gaa ctt ttg aaa aag aag gat gaa gaa	924
Ala Glu Val Asp Lys Asn Ile Glu Leu Leu Lys Lys Lys Asp Glu Glu	
275 280 285	

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cta agt tct gct ctg gag aaa atg gaa aat caa tct gaa aat aat gat 972
Leu Ser Ser Ala Leu Glu Lys Met Glu Asn Gln Ser Glu Asn Asn Asp
290 295 300

att gat gaa gtt atc att ccc aca gcc cca ctg tat aaa cag att cta 1020
Ile Asp Glu Val Ile Ile Pro Thr Ala Pro Leu Tyr Lys Gln Ile Leu
305 310 315 320

aat ctg tat gca gag gaa aat gct att gaa gac act atc ttt tac ctt 1068
Asn Leu Tyr Ala Glu Asn Ala Ile Glu Asp Thr Ile Phe Tyr Leu
325 330 335

gga gaa gct ttg cgg cgg gga gtc ata gac ctg gat gtg ttc ctg aaa 1116
Gly Glu Ala Leu Arg Arg Gly Val Ile Asp Leu Asp Val Phe Leu Lys
340 345 350

cac gtc cgc ctc ctg tcc cgt aaa cag ttc cag cta agg gca cta atg 1164
His Val Arg Leu Leu Ser Arg Lys Gln Phe Gln Leu Arg Ala Leu Met
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Gln Lys Ala Arg Lys Thr Ala Gly Leu Ser Asp Leu Tyr
370 375 380

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tatattttct gtttcctttg ggtaaaaact ggctttttatt aatgcacttt ctaccctctg 1393
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&lt;210&gt; 2

&lt;211&gt; 381

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; TSG101 amino acid

&lt;400&gt; 2

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20 25 30
Val Phe Asn Asp Gly Ser Ser Arg Glu Leu Val Asn Leu Thr Gly Thr
35 40 45
Ile Pro Val Arg Tyr Arg Gly Asn Ile Tyr Asn Ile Pro Ile Cys Leu
50 55 60
Trp Leu Leu Asp Thr Tyr Pro Tyr Asn Pro Pro Ile Cys Phe Val Lys
65 70 75 80
Pro Thr Ser Ser Met Thr Ile Lys Thr Gly Lys His Val Asp Ala Asn
85 90 95
Gly Lys Ile Tyr Leu Pro Tyr Leu His Asp Trp Lys His Pro Arg Ser
100 105 110
Glu Leu Leu Glu Leu Ile Gln Ile Met Ile Val Ile Phe Gly Glu Glu
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 Ile Asp Glu Val Ile Ile Pro Thr Ala Pro Leu Tyr Lys Gln Ile Leu  
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 325 330 335  
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&lt;211&gt; 1494

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; primer

&lt;400&gt; 3

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&lt;211&gt; 390

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; primer

&lt;400&gt; 4

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Met Ala Val Ser Glu Ser Gln Leu Lys Lys Met Val Ser Lys Tyr Lys
1      5      10      15
Tyr Arg Asp Leu Thr Val Arg Glu Thr Val Asn Val Ile Thr Leu Tyr
20     25     30
Lys Asp Leu Lys Pro Val Leu Asp Ser Tyr Val Phe Asn Asp Gly Ser
35     40     45
Ser Arg Glu Leu Met Asn Leu Thr Gly Thr Ile Pro Val Pro Tyr Arg
50     55     60
Gly Asn Thr Tyr Asn Ile Pro Ile Cys Leu Trp Leu Leu Asp Thr Tyr
65     70     75     80
Pro Tyr Asn Pro Pro Ile Cys Phe Val Lys Pro Thr Ser Ser Met Thr
85     90     95
Ile Lys Thr Gly Lys His Val Asp Ala Asn Gly Lys Ile Tyr Leu Pro
100    105    110
Tyr Leu His Glu Trp Lys His Pro Gln Ser Asp Leu Leu Gly Leu Ile
115    120    125
Gln Val Met Ile Val Val Phe Gly Asp Glu Pro Pro Val Phe Ser Arg
130    135    140
Pro Ile Ser Ala Ser Tyr Pro Pro Tyr Gln Ala Thr Gly Pro Pro Asn
145    150    155    160
Thr Ser Tyr Met Pro Gly Met Pro Gly Gly Ile Ser Pro Tyr Pro Ser
165    170    175
Gly Tyr Pro Pro Asn Pro Ser Gly Tyr Pro Gly Cys Pro Tyr Pro Pro
180    185    190
Gly Gly Pro Tyr Pro Ala Thr Thr Ser Ser Gln Tyr Pro Ser Gln Pro
195    200    205
Pro Val Thr Thr Val Gly Pro Ser Arg Asp Gly Thr Ile Ser Glu Asp
210    215    220
Thr Ile Arg Ala Ser Leu Ile Ser Ala Val Ser Asp Lys Leu Arg Trp
225    230    235    240
Arg Met Lys Glu Glu Met Asp Arg Ala Gln Ala Glu Leu Asn Ala Leu
245    250    255
Lys Arg Thr Glu Glu Asp Leu Lys Lys Gly His Gln Lys Leu Glu Glu
260    265    270
Met Val Thr Arg Leu Asp Gln Glu Val Ala Glu Val Asp Lys Asn Ile
275    280    285
Glu Leu Leu Lys Lys Lys Asp Glu Glu Leu Ser Ser Ala Leu Glu Lys
290    295    300
Met Glu Asn Gln Ser Glu Asn Asn Asp Ile Asp Glu Val Ile Ile Pro
305    310    315    320
Thr Ala Pro Leu Tyr Lys Gln Ile Leu Asn Leu Tyr Ala Glu Glu Asn
325    330    335
Ala Ile Glu Asp Thr Ile Phe Tyr Leu Gly Glu Ala Leu Arg Arg Gly
340    345    350

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Val Ile Asp Leu Asp Val Phe Leu Lys His Val Arg Leu Leu Ser Arg  
           355                          360                          365  
 Lys Gln Phe Gln Leu Arg Ala Leu Met Gln Lys Ala Arg Lys Thr Ala  
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